

CLAIMS:

1. A method of manufacturing an electronic device provided with an electric element and a carrier with a first side and an opposed second side, comprising the steps of:

- providing the carrier comprising a patterned connection layer, an intermediate layer and a continuous carrier layer of electrically conductive material, which connection layer is present at the first side of the carrier, said intermediate layer comprising an electrically conductive material and having a pattern substantially corresponding to that of the connection layer;

- mounting the electric element to the carrier;
- applying an electrically insulating material which extends to a surface of the intermediate layer;

- patterning the carrier layer from the second side of the carrier, therewith creating contact pads for external contacting, which contact pads are connected to corresponding patterns in the connection layer through interconnects in the intermediate layer, and

15 - providing a protective layer at the second side of the carrier which covers an interface between the intermediate layer and the contact pads.

2. A method as claimed in Claim 1, wherein the protective layer comprises an electrically insulating material and leaves the contact pads exposed.

20 3. A method as claimed in Claim 1 or 2, wherein the carrier is provided with a masking layer at its second side, through which masking layer first the carrier layer is patterned into contact pads, as a result of which patterning process the masking layer has a larger surface area than the corresponding contact pads, whereafter a positive photosensitive composition is applied at the second side of the carrier, that is subsequently patterned into irradiated and non-irradiated areas in a photolithographical treatment in which the masking layer is used as a mask, the irradiated areas being washed away.

4. A method as claimed in Claim 1, wherein:

- the connection layer of the carrier comprises bond pads, and
- the electric element is mounted at the first side of the carrier, bond pads of the element being coupled to corresponding bond pads in the connection layer.

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5. An electronic device provided with an electric element and an encapsulation of electrically insulating material, and a carrier with a first side facing the element and an opposed second side, said carrier comprising:

- a patterned connection layer
- contact pads for coupling to an external carrier or an element, and
- an intermediate layer of electrically conductive material, which is patterned so as to create interconnects between the interconnection layer and the contact pads, interconnects are mutually isolated by isolation areas, the encapsulation extending into the isolation areas,
- wherein a protective layer is present at the second side of the carrier so as to protect an interface between the intermediate layer and the contact pads.

6. An electronic device as claimed in Claim 5, wherein the bond pads and any other conducting elements at the first side of the carrier are mechanically anchored in the encapsulation.

7. An electronic device as claimed in Claim 5-6, wherein at least a number of contact pads is laterally displaced with respect to the corresponding bond pads.

25 8. An electronic device as claimed in Claim 5, wherein the protective layer laterally extends so as to cover the intermediate layer.

9. An electronic device as claimed in Claim 5, wherein:

- the contact pads comprise a main layer and a masking layer, said masking layer being present at the second side of the carrier and having a larger surface area than the main layer, and
- the protective layer is substantially present between the masking layer and the intermediate layer, such that on perpendicular projection of the protective layer on the masking layer there is a substantial overlap.

10. An electronic device as claimed in Claim 5, wherein the electric element is a semiconductor device, that is at least partially encapsulated in the encapsulation.